

WHAT IS CLAIMED IS:

1. A load sensor comprising a base plate which is deformed when subjected to a load and a plurality of strain gauges which are attached to said base plate to form a bridge circuit, wherein:

said load sensor measures a load by detecting an electrical signal from the bridge circuit, wherein said strain gauges forming the bridge circuit are attached to the front and back surfaces of said base plate at substantially the same location to compensate the variation in resistance among the strain gauges generated due to the temperature distribution of said base plate.
2. A load sensor according to Claim 1, wherein said strain gauges are connected to adjacent sides of the bridge circuit.
3. A load sensor according to Claim 1, wherein said load sensor includes a flexible substrate on which the strain gauges, electrical components and a circuit pattern as the auxiliaries are mounted wherein the substrate is made of an insulating material and is adhered to said base plate.
4. A load sensor according to Claim 3, wherein said flexible substrate is composed of two insulating materials sandwiching a conductive member forming a ground pattern therebetween, and said ground pattern is in communication with a ground line mounted on the front surface of the flexible substrate.
5. A load sensor according to Claim 3, wherein said flexible substrate in which a conductive member forming a ground pattern is embedded, and said ground pattern is in communication with a ground line mounted on the front surface of the flexible substrate.
6. A load sensor according to Claim 3, wherein a ground pattern is provided via an insulating member on at least one of the upper side and the lower side of the strain gauges, the electrical components, the circuit pattern, and said ground pattern is in communication with a ground line mounted on the front surface of the flexible substrate.

7. A load sensor according to Claim 4, wherein said ground pattern is in communication with the ground line which is mounted on the front surface of the flexible substrate via an RC parallel circuit.
8. A load sensor according to Claim 3, further comprising a backing plate which is provided at a portion of said flexible substrate on which the electrical components are mounted.
9. A load sensor according to Claim 3, wherein said strain gauges are mounted on a single flexible substrate and are attached to the front and back surfaces of said base plate by folding said flexible substrate and applying said flexible substrate to the front and back surfaces of said base plate.
10. A load sensor wherein strain gauges forming a bridge circuit are attached to front and back surfaces of a base plate at substantially the same location to compensate the variation in resistance among the strain gauges generated due to the temperature distribution of said base plate.
11. A seat weight measuring apparatus for measuring the weight of a vehicle seat including the weight of an occupant sitting thereon, comprising: a load sensor which is disposed inside a seat or between the seat and a vehicle body and which receives at least a part of the weight of the vehicle seat and converts the received weight into an electrical signal.